

CLAIMS

What is claimed is:

1. A housing for mounting electronic equipment therein, said housing comprising:
at least one horizontally positioned mounting surface, said mounting surface positioned between a top and bottom of said housing and having provisions for accepting electrical components positioned thereon such that air may flow between opposing vertical walls of said housing flows along the plane of said mounting surface without traversing bends.
2. The housing of claim 1 wherein said electrical components comprise plug-in board connectors.
3. The housing of claim 2 wherein said plug-in connections are in-line with said air flow.
4. The housing of claim 1 further comprising:
at least one air fan mounted on a first one of said opposing vertical walls of said housing;
and
at least one air vent constructed in a second one of said opposing vertical walls of said housing.
5. The housing of claim 1 further comprising:
a fan for moving air between said opposing vertical surfaces; and at least one air opening in each of said opposing vertical surface.
6. The housing of claim 5 wherein said fan is mounted on said horizontally positioned mounting surface.
7. The housing of claim 1 further comprising:
a plurality of electronic components connected to said mounting surface, said electronic components extending perpendicular to said mounting surface and in-line with said air moving between said opposing vertical surfaces.
8. The housing of claim 7 further comprising at least one fan mounted on at least one of said connected components.

9. The housing of claim 7 wherein said electronic components are plug-in boards.
10. The housing of claim 1 wherein said provisions for accepting electrical components are positioned on both the top and bottom surfaces of said horizontal mounting surface.
11. The housing of claim 10 wherein air flow above and below said horizontal mounting surface is controlled independently.
12. The housing of claim 1 wherein said mounting surface has positioned thereon a plurality of plug-in boards, said positioned boards being blades of a computer system.
13. The housing of claim 1 wherein further comprising:
a second horizontal mounting surface mounted parallel to said at least one mounting surface and positioned away from either said top or said bottom of said housing.
14. A computer comprising:
at least one mounting plane within said computer, each said mounting plane having mounted thereon a plurality of connectors, each connector adapted for mating with perpendicularly disposed plug-in boards such that air transiting from a first vertical wall of said computer to an opposing vertical wall of said computer flows parallel to said mounting plane and in-line with mated ones of said plug-in boards.
15. The computer of claim 14 wherein each said mounting plane is mounted parallel to the top and bottom of said computer.
16. The computer of claim 15 wherein said connectors are mounted on the top and bottom surfaces of at least one of said mounting planes.
17. The computer of claim 15 wherein at least one of said plug-in boards is a blade of a computer system.
18. The computer of claim 15 further comprising:
an opening in one of said vertical surfaces, said opening allowing plug-in boards to be mated with said connectors on either the top or bottom surface of at least one of said mounting planes.

19. The computer of claim 15 further comprising:
at least one fan operative for forcing air between a front vertical surface and a back vertical surface of said computer.

20. A method for mounting electrical components within a computer housing, said method comprising:

inserting a first one of said electrical component through an opening in a first vertical portion of said housing;

connecting said inserted electrical component to a structure such that connected ones of said electrical components is maintained at an angle to said structure, said structure having been horizontally pre-positioned within said housing; and

moving air between said first vertical portion of said housing and an opposing vertical portion of said housing along the plane of said structure.

21. The method of claim 20 wherein said connecting comprises:
mating said electrical component with said structure using plug-in connectors.

22. The method of claim 20 further comprising:
moving said air independently above or below said structure.

23. A system for reducing air flow restrictions in a housing, said system comprising:
means for capturing electrical components within said housing, said captured components each maintained at an angle to said capturing means; and
means for supporting a plurality of said capturing means, said supporting means positioned such that air flowing between vertical surfaces of said containing means moves without bending around said supporting means.